## Exhibit 5

1	IN THE UNITED STATES DISTRICT COURT
2	FOR THE EASTERN DISTRICT OF TEXAS
3	MARSHALL DIVISION
4	
5	OYSTER OPTICS, LLC
6	Plaintiff
7	vs. Civil Action No:
8	CORIANT AMERICA, INC. 2:16-cv-01302
9	et al.
10	Defendants
11	/
12	
13	
14	The Videotaped DEPOSITION OF GEORGE PAPEN,
15	Ph.D. was held on Wednesday, February 7, 2018,commencing
16	at 11:23 a.m., at Duane Morris, LLP, 509 Ninth Street,
17	N.W., Suite 1000, Washington, D.C. 20004, before Heather
18	Bjork Avalos, Notary Public.
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24	REPORTED BY: Heather Bjork Avalos
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18:52	1	and for transmitting data over a first optical fiber
18:52	2	and receiving data over a second optical fiber.
18:52	3	Q So it's your opinion that it would have
18:52	4	been obvious to change Corke to use one fiber to
18:52	5	transmit and the other fiber to receive, correct?
18:52	6	A It would have been obvious to a person of
18:52	7	skill in the art at the time to implement features of
18:52	8	Corke in combination with Nesnidal so as to have a card
18:53	9	for telecommunications box for transmitting data over
18:53	10	the first optical fiber and receiving data over a
18:53	11	second optical fiber.
18:53	12	MR. RUBIN: So we're not quite at 7:00, but
18:53	13	I'll pass the witness.
18:53	14	MR. BAIRD: Quick break.
18:53	15	THE VIDEOGRAPHER: Off the record at 6:54.
18:53 18:53		THE VIDEOGRAPHER: Off the record at 6:54.  (There was a break in the proceedings.)
	16	
18:53	16 17	(There was a break in the proceedings.)
18:53 18:53	16 17 18	(There was a break in the proceedings.)  THE VIDEOGRAPHER: Back on the record at
18:53 18:53 19:06	16 17 18 19	(There was a break in the proceedings.)  THE VIDEOGRAPHER: Back on the record at 7:07.
18:53 18:53 19:06 19:06	16 17 18 19 20	(There was a break in the proceedings.)  THE VIDEOGRAPHER: Back on the record at 7:07.  CROSS EXAMINATION BY MR. BAIRD:
18:53 18:53 19:06 19:06	16 17 18 19 20 21	(There was a break in the proceedings.)  THE VIDEOGRAPHER: Back on the record at 7:07.  CROSS EXAMINATION BY MR. BAIRD:  Q Good evening, Professor Papen.
18:53 18:53 19:06 19:06 19:06	16 17 18 19 20 21 22	(There was a break in the proceedings.)  THE VIDEOGRAPHER: Back on the record at  7:07.  CROSS EXAMINATION BY MR. BAIRD:  Q Good evening, Professor Papen.  A Good evening.
18:53 18:53 19:06 19:06 19:06 19:06	16 17 18 19 20 21 22 23	(There was a break in the proceedings.)  THE VIDEOGRAPHER: Back on the record at  7:07.  CROSS EXAMINATION BY MR. BAIRD:  Q Good evening, Professor Papen.  A Good evening.  Q So earlier today, counsel for Oyster Optics

19:07	1	Do you have any anticipation opinions in
19:07	2	the report other than the ones that are reflected as
19:07	3	anticipation in the table of contents?
19:07	4	A Yes, I do.
19:07	5	Q And what are those?
19:07	6	A Referring to the table of contents with
19:07	7	regard to the Pirelli system, wherein section D, a
19:07	8	Pirelli system, numbers 4 this is on page it's in
19:07	9	the table of contents. Number 4, 5, 6, 7, and 8. As
19:08	10	stated, those in the table of contents is obvious. The
19:08	11	actual that actually should have been anticipated.
19:08	12	Q And what claims are those section headings
19:08	13	relate to?
19:08	14	A Those claims are associated with Pirelli
19:08	15	system and the claims in the '327 Patent, specifically
19:08	16	that the card the RTX card satisfies all of those
19:09	17	claims under the construction of Oyster that strike
19:09	18	that. Under the satisfy all the claims of the
19:09	19	patent.
19:09	20	Q So, Professor Papen, when you were
19:09	21	referencing your table of contents, section D, you were
19:09	22	reading Roman letters, four, five, six, seven, eight.
19:09	23	So my question is just the RXT module. The
19:09	24	anticipation opinions that you have with respect to the
19:09	25	RXT module, what claims does that pertain to?

19:09	1	A Okay. So let me go to those claims. So
19:10	2	specifically on section four which deals with claim 1
19:10	3	of the '327 Patent, it now anticipates one pre
19:10	4	transceiver card for a communications box for
19:10	5	transmitting data over a first optical fiber and
19:10	6	receiving data over a second optical fiber, the card
19:10	7	comprising. So with respect to that claim and it being
19:10	8	a telecommunications so I'll keep reading. That's
19:10	9	claim 1.
19:11	10	Claim 5
19:11	11	MR. BAIRD: I think they're listed in the
19:11	12	table of contents.
19:11	13	THE WITNESS: They are. But I'm going to
19:11	14	read what they are because the card recited in claim
19:11	15	1 wherein an energy level detector includes a
19:11	16	photodiode and a linear logarithmic amplifier scaling
19:11	17	an output of the photodiode.
19:11	18	Claim 11. The card is decided, one, where
19:11	19	the plurality of thresholds indicate an increase of the
19:11	20	optical energy level.
19:11	21	Claim 38. The card as recited in claim 36
19:12	22	further comprising the photodiode in a linear
19:12	23	logarithmic amplifier scaling and output of the
19:12	24	photodiode.
19:12	25	So this anticipation opinion is based on

19:12	1	Oyster's contention that the electrical signals within
19:12	2	a box can be signals within a card. And thus the RTX
19:12	3	card the internal structure of the RTX card
19:12	4	satisfies that viewpoint. And therefore the RTX card
19:12	5	in the Pirelli system anticipates the claims as I
19:13	6	stated.
19:13	7	Q So is it your opinion that the RXT module
19:13	8	anticipates claim 1, 5, 11, 36, and 38 of the '327
19:13	9	Patent?
19:13	10	A It is.
19:13	11	Q Turning to the '511 Patent, do you have any
19:13	12	anticipation opinions other than what is reflected in
19:13	13	your table of contents?
19:13	14	A Yes. So in the table of contents, Part C
19:13	15	the Pirelli system, the Pirelli system anticipates the
19:13	16	'511 Patent.
19:13	17	And so claim 1, one premethod for operating
19:14	18	an optical fiber multiplex and comprising. In
19:14	19	paragraph 1487, to the extent the preamble is limiting,
19:14	20	a person that is skilled in the art at the time of the
19:14	21	invention would have understood that the Pirelli system
19:14	22	embodied and rendered obvious a method for operating an
19:14	23	optical fiber multiplexor.
19:14	24	For each one of the claims of the '511
19:14	25	Patent, the Pirelli systems embodies that claim and